

Appl. No. 09/740,601

In the Claims

Please amend the claims as follows:

1. (currently amended) A method of debugging selecting a symbol table, comprising:

5 providing a plurality of symbol tables in a computer system, said computer system having an address pointer, each of said symbol tables encompassing a range of addresses, each of said symbol tables being associated with at least one symbol in common but with different memory offsets; and

10 selecting at least one of said plurality of symbol tables within whose range of addresses said address pointer is pointing, wherein said at least one symbol table is selected based on said address pointer; and

15 accessing said at least one selected symbol table to display at least one symbol while debugging software associated with said plurality of symbol tables.

2. (previously presented) The method of claim 1, wherein a debugger connected to said computer system performs said selecting of said at least one of said plurality of symbol  
20 tables.

3. (previously presented) The method of claim 2, wherein said selecting is performed each time said debugger transitions from an executing mode to a command mode.

4. (previously presented) The method of claim 1, wherein  
25 said computer system performs said selecting of said at least one of said plurality of symbol tables.

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5. (original) The method of claim 1, wherein said address pointer comprises a pointer to a memory location containing instructions to be executed.

6. (original) The method of claim 5, wherein said pointer comprises a program counter.

7. (original) The method of claim 1, wherein said computer system comprises a plurality of cells, each of said cells comprising a processing unit having at least one computer processor, the method further comprising identifying an active cell among said plurality of cells, wherein said symbol table is being selected for said active cell.

8. (previously presented) The method of claim 7, wherein said plurality of symbol tables includes at least one base symbol table and a plurality of secondary symbol tables, and wherein said selecting said at least one of said plurality of symbol tables comprises:

examining said at least one base symbol table to determine whether said address pointer is pointing within said at least one base symbol table; and

examining at least one of said plurality of secondary symbol tables to determine whether said address pointer is pointing within said at least one of said plurality of secondary symbol tables, wherein said at least one of said plurality of secondary symbol tables is associated with said active cell.

9. (original) The method of claim 8, wherein said plurality of symbol tables are contained in a symbol table set, and wherein each of said plurality of secondary symbol tables comprise a reference to a base symbol table, a cell

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identifier, and an address offset specifying an offset from said base symbol table.

10. (original) The method of claim 8, wherein said at least one base symbol table is examined before said at least one of said plurality of secondary symbol tables is examined.

11. (original) The method of claim 8, wherein said at least one of said plurality of secondary symbol tables is only examined if said address pointer is not pointing within said at least one base symbol table.

12. (original) The method of claim 8, wherein said examining at least one of said plurality of secondary symbol tables comprises checking a cell identifier within each of said plurality of secondary symbol tables to determine whether each of said plurality of secondary symbol tables is associated with said active cell, and examining only tables within said plurality of secondary symbol tables which are associated with said active cell to determine whether said tables which are associated with said active cell should be selected.

13. (original) The method of claim 1, wherein said at least one of said plurality of symbol tables is selected by marking said at least one of said plurality of symbol tables as active.

14. (original) The method of claim 13, further comprising a debugger using a symbol table among said plurality of symbol tables which is marked as active.

15. (original) The method of claim 1, wherein said computer system comprises an architectural simulator.

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16. (currently amended) An apparatus for debugging software ~~automatically selecting a symbol table in a computer having a program counter and a plurality of symbol tables~~, the apparatus comprising:

5           a) at least one computer readable storage medium; and  
          b) computer readable program code stored on the at least one computer readable storage medium, the computer readable program code comprising:

10               code for selecting one of a ~~said~~ plurality of symbol tables ~~if a wherein said~~ program counter in a ~~said~~ computer contains an address within said one of said plurality of symbol tables; and

15               code for accessing said one selected symbol table to display at least one symbol while debugging software associated with said plurality of symbol tables.

17. (previously presented) The apparatus of claim 16, wherein each of said plurality of symbol tables includes symbols stored within an address range, and wherein said code for selecting said one of said plurality of symbol tables  
20           comprises determining whether said program counter contains an address within said address range for said one of said plurality of symbol tables.

18. (previously presented) The apparatus of claim 16, wherein said code for selecting one of said plurality of  
25           symbol tables comprises code for determining whether said program counter contains an address within a base symbol table in said plurality of symbol tables.

19. (previously presented) The apparatus of claim 16, wherein said code for selecting one of said plurality of  
30           symbol tables comprises code for determining whether said

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program counter contains an address within an offset symbol table in said plurality of symbol tables.

20. (original) The apparatus of claim 19, wherein said computer comprises a plurality of processing cells.

5 21. (previously presented) The apparatus of claim 20, wherein said code for selecting one of said plurality of symbol tables further comprises code for determining whether a cell identifier in said offset symbol table refers to one of said plurality of processing cells which is executing said  
10 computer readable program code.

22. (original) The apparatus of claim 16, further comprising code for determining whether said one of said plurality of symbol tables is enabled for automatic selection.

15 23. (currently amended) A debugging apparatus, comprising:  
a computer having a plurality of symbol tables stored thereon;  
a debugger connected to said computer; and  
~~automatic symbol table selection means for automatically selecting at least one of said plurality of symbol tables in~~  
20 ~~said computer for said debugger; and~~  
means for displaying at least one symbol from said at least one selected symbol table while debugging software associated with said plurality of symbol tables with said debugger.

25 24. (original) The debugging apparatus of claim 23, wherein said computer comprises a plurality of processing cells.

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25. (currently amended) An apparatus for debugging software  
~~automatically selecting a symbol table~~ in a computer having a  
plurality of processing cells and having a plurality of symbol  
tables stored thereon, each of said plurality of symbol tables  
5 having a cell identification to indicate for which of said  
plurality of processing cells it is intended, the apparatus  
comprising:

a) at least one computer readable storage medium; and

b) computer readable program code stored on said at

10 least one computer readable storage medium, the computer  
readable program code comprising:

code for selecting at least one symbol table which  
is intended for use with the processing cell which is  
executing said computer readable program code, wherein  
15 said at least one symbol table is selected if a program  
counter in said computer contains an address within said  
at least one symbol table; and

code for accessing said at least one selected symbol  
table to display at least one symbol while debugging said  
20 software that is associated with said plurality of symbol  
tables.